### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019405 Address: 333 Burma Road **Date Inspected:** 17-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

### MAGNETIC PARTICLE TESTING

ZPMC NWIT No: 08203

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (MT) report on this date. The members are identified as deck panel. The weld designations are as follows:

FB3233-001-049, 050, 055, 056, 061, 062, 067, 068, 073, 074, 079, 080, 085, 086, 091, 092, 099, 100,

SEG3015B-008, 264, 265, 026, 027

### MAGNETIC PARTICLE TESTING

ZPMC NWIT No: 08201

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# WELDING INSPECTION REPORT

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date. The members are identified as deck panel. The weld designations are as follows:

SEG3015N-161, 162, 167, 168, 173, 174, 179, 180, 185, 186, 191, 192, 197, 198, 203, 204, 209, 210 LD3036-001-096, 097, 255, 256, 285, 286, 315, 316, 345, 346

This QA Inspector randomly observed the following work in progress.

## **OBG 14EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 043661 performing the Shielded Metal Arc Welding process on weld 169 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066422 performing the Shielded Metal Arc Welding process on weld 147 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal Arc Welding process on weld 191 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037997 performing the Shielded Metal Arc Welding process on weld 125 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-345-SMAW-2G (2F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2737.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068097 performing the Shielded Metal Arc Welding process on weld 001 located at PCMK SEG3019A. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Fcm-Repair-1. Weld repair report identified as B-WR19896.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044772 performing the Shielded Metal Arc Welding process on weld 048 located at PCMK SEG3019Q-1. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2671.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 217805 performing the Flux Cored Arc Welding process on weld 056 located at PCMK SEG3019AJ. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068501 performing the Flux Cored Arc Welding process on weld 040 located at PCMK SEG3019W. ZPMC QC Mr. Wang Xu was monitoring this

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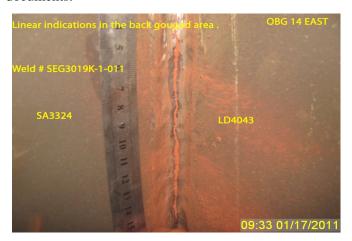
welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070006 performing the Flux Cored Arc Welding process on weld 151 located at PCMK SEG3019E-2. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2231-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044830 performing the Shielded Metal Arc Welding process on weld 002 located at PCMK SEG3019K-1. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1.

During the random visual inspection of the OBG segment 14 east, this QA Inspector observed various linear indications back gouged area of the weld between LD3043 and SA3324, weld number identified as SEG3019K-1-011, this QA Inspector informed to ZPMC CWI, ABF QA and lead QA (CT), ABF QA they will performed magnetic particle inspection and removed all linear indication prior to welding.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





### **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer